

Applicants: Robert J. Winchester, et al.  
U.S. Serial No.: 09/773,876  
Filed: January 31, 2001  
Page 4

In view of the arguments set forth below, applicants maintain that the Examiner's objections and rejections made in the September 18, 2002 Office Action have been overcome, and respectfully request that the Examiner reconsider and withdraw same.

#### The Claimed Invention

This invention provides a method for determining whether an agent inhibits the activation of a CXCR4 receptor by SDF-1. This method has use in identifying agents useful for treating rheumatoid arthritis through inhibiting the SDF-1-mediated activation of a subject's CXCR4 receptors.

#### Rejection Under 35 U.S.C. §112, First Paragraph

The Examiner rejected claims 13-15 under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants point out that claims 13-15 have been canceled and new claims 18 and 19 have been added. Accordingly, applicants understand the Examiner's rejection as directed to new claims 18 and 19.

Specifically, the Examiner asserted that "the claims encompass use of SDF-1 and CXCR4 receptor positive cells from any mammalian species...However, the only SDF-1 and CXCR4 receptors that were known in the art or disclosed in the specification are human or mouse SDF-1 and CXCR4 receptors."

Applicants: Robert J. Winchester, et al.  
U.S. Serial No.: 09/773,876  
Filed: January 31, 2001  
Page 5

In response, applicants respectfully traverse. Applicants point out that new claim 18 provides that the cells expressing CXCR4 receptor are human or mouse cells, and are thus described in the specification.

In view of the above remarks, applicants maintain that new claims 18 and 19 satisfy the requirements of 35 U.S.C. §112, first paragraph.

Rejection Under 35 U.S.C. §102(b)

The Examiner rejected claim 13-15 under 35 U.S.C. §102(b) as allegedly anticipated by D'Apuzzo, et al. (Eur. J. Immunol. 27, 1788-1793, 1997). Applicants point out that claims 13-15 have been canceled and new claims 18 and 19 have been added. Accordingly, applicants understand the Examiner's rejection as directed to new claims 18 and 19.

In response to the Examiner's rejection, applicants respectfully traverse.

Briefly, new claims 18 and 19 provide a method for determining whether an agent inhibits the activation of CXCR4 receptor by SDF-1. The instant method comprises steps of contacting the agent with CXCR4 receptor-expressing cells in the presence of SDF-1, and measuring the inhibition of receptor activation.

To anticipate the methods of the claims, D'Apuzzo, et al. would have to teach each and every element thereof. They fail to do this.

Applicants: Robert J. Winchester, et al.  
U.S. Serial No.: 09/773,876  
Filed: January 31, 2001  
Page 6

D'Apuzzo, et al. teach that SDF-1 is the ligand for the chemokine receptor CXCR4, and that an anti-CXCR4 monoclonal antibody (12G5) inhibits SDF-1-dependent migration of select human pre- and pro-B cell lines.

D'Apuzzo, et al. do not, however, teach a method for determining whether an agent inhibits the activation of a CXCR4 receptor by SDF-1. Rather, the teachings of D'Apuzzo, et al. concern the study of SDF-1 involvement in *normal* growth and development, as opposed to its involvement in disease. D'Apuzzo, et al. therefore fail to teach each and every element of the rejected claims.

In view of the above remarks, applicants maintain that new claims 18 and 19 satisfy the requirements of 35 U.S.C. §102(b).

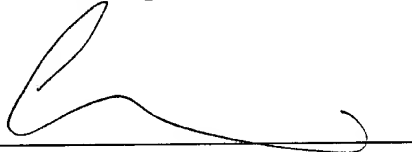
#### Summary

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorneys invite the Examiner to telephone them at the number provided below.

Applicants: Robert J. Winchester, et al.  
U.S. Serial No.: 09/773,876  
Filed: January 31, 2001  
Page 7

No fee is deemed necessary in connection with the filing of this Amendment. However, if any fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:

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12/18/02